

Why Biology?

Biology is the study of all living things. Estimates of the total number of species on Earth range from five to 30 million, and less than two million species have been formally identified. You will learn about organisms that live on land and sea, and the ecological complexes of which they are part. You will also find out how Biology is helping to find solutions to world problems.

There are many career opportunities connected with biology, including medicine, nursing, dentistry, physiotherapy, food science, sport science, pharmacology and beauty therapy.

Course Outline

Biology is a practical, hands-on subject that develops your skills of scientific enquiry, and helps you to solve problems and make decisions. You will learn about plants, animals and people. You will find out how population growth is affecting the variety of life on earth (known as biodiversity). You will develop your skills in carrying out biological experiments in laboratories.

BIOLOGY NATIONAL 4

Details of Course Components

The course has three compulsory units plus an added value unit that assesses your practical skills.

Cell Biology

In this unit you will:

- develop your skills of scientific enquiry by studying cell division, DNA, genes and chromosomes, enzymes, microorganisms, and photosynthesis.

Biology: Multicellular Organisms

In this unit you will:

- learn about sexual and asexual reproduction and their importance for survival of species
- learn about propagating and growing plants;
- explore the commercial use of plants, genetic information and growth and development of different organisms
- learn how organisms respond to internal and external changes in order to maintain stable body conditions.

Biology: Life on Earth

In this unit you will:

- learn how animal and plants species depend on each other
- study the impact of population growth on biodiversity, the nitrogen cycle, fertiliser design
- learn what impact fertilisers have on the environmental
- explore the adaptations for survival and learned behaviour in response to stimuli.
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Added Value Unit: Biology Assignment

In this unit you will:

- carry out an investigation on a biological topic, drawing on the skills you have learned from the other units and present your findings in an assignment.



FACULTY OF SCIENCE

Biology Staff :

Mr Alan Stickle, Miss Rowan Cannell,
Miss Sue Rodwell

Chemistry Staff:

Mr Stephen McNeil, Miss Kat Barnard,
Mrs Maryann Blakeborough

Physics Staff:

Mrs Abi Gibbon, Mr Steven Dempsey

Career Areas:

There are many career opportunities connected with biology, including medicine, veterinary work, nursing, dentistry, physiotherapy, food science, agriculture, sports science, biomedical science, pharmacology and beauty therapy.

Courses in Turriff Academy

National 4 Environmental Science
National 4 Chemistry
National 4 Physics
National 5 Biology
National 5 Chemistry
National 5 Physics
Higher Biology
Higher Chemistry
Higher Physics
Scientific Technologies NPA
Advanced Higher Biology
Advanced Higher Chemistry
Advanced Higher Physics

Useful websites to help you with your choices:

www.myworldofwork.co.uk
www.skillsdevelopmentscotland.co.uk

Further advice and information on these options is available from your subject teacher, guidance teacher and careers adviser.